UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,403	07/01/2003	Theodore F. Emerson	200304331-2	1914

		EXAMINER
7590	11/21/2006	NGUYEN, HAU H

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ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/611,403	EMERSON ET AL.
	Examiner	Art Unit
	Hau H. Nguyen	2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 July 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-38</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Double Patenting

1.   The nonstatutory double patenting rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection

is appropriate where the conflicting claims are not identical, but at least one examined

application claim is not patentably distinct from the reference claim(s) because the examined

application claim is either anticipated by, or would have been obvious over, the reference

claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re

Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225

USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re

Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163

USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may

be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the

scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR

3.73(b).

Claims 1-38 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-68 of U.S. Patent No. 6,664,969. Although the conflicting claims are not identical, they are not patentably distinct from each other because the features of claims 1-38 of the application are contained in claims 1-68 of U.S. Patent No. 6,664,969.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 13-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The features "*comparing the first block to the subsequent/second block, ...how many subsequent blocks equal the first block / if the first and second block are not equal*" is critical or essential to the practice of the invention, but are not found in the specification. The specification only recites comparing the hash code of the first block to that of the second block to find if they are equal, but not disclose comparing the first block with the second or subsequent block to find if they are equal.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-2, 5-11, 25-26, 30-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Schauser (U.S. Patent No. 6,331,855).

As per claim 1, Schauser teach a method for transmitting video graphics data (Fig. 5), comprising:

dividing a screen into a number of blocks, the blocks having contents (dividing into portions, subregions or tiles);

periodically reading the contents of each one of the blocks (by polling the portions, subregions/tiles);

computing a unique value for a first block based on the contents (computing the checksum of the portion);

comparing the unique value for the first block to a previously computed unique value corresponding to the first block (checksum is then compared to a previously computed checksum for the same portion); and

transmitting the contents of the first block if the unique value for the first block is different from the previously computed unique value corresponding to the first block (forwarded to a remote computer) (col. 5, lines 6-35).

As per claim 2, Schauser further storing the unique value for the first block in a table if the unique values are different (col. 5, lines 22-23); and comparing the unique value of the first block to a unique value corresponding to a preceding block (as cited above), wherein the

transmitting step transmits the preceding block and a repeat command if the unique value of the first block is equal to the unique value corresponding to the preceding block (Figs. 8A and 8B, col. 9, lines 24-56). (It is noted that the CPU repeatedly polls the lines/ portions/ sub-regions for changes to transmit the changed portions as cited above).

As per claim 5, Schauser also teach periodically reading configuration information of a video graphics controller to determine if the configuration information has changed (such as the detection processes changes (504a and 504b, Figs. 6 and 7, col. 8, line 66 through col. 9, line 11); and transmitting configuration changes if the configuration information has changed (as cited above).

As per claim 6, Schauser further teaches the screen is divided into a number of blocks, including rows and columns, based on the screen resolution (col. 7, lines 10-34), and it is inherent that the configuration information is read after a row of blocks is completed in order to process the change detection.

As per claim 7, Schauser further teaches reading the configuration of a pointing device (col. 7, line 57 through col. 8, line 2). Determining configuration changes and transmitting configuration changes is as applied to claim 5.

Claim 8, which is similar in scope to claim 6, is thus rejected under the same rationale.

As per claim 9, Schauser teaches all the blocks are read over a number of passes (CPU repeatedly monitors all the blocks for changes), and each pass reads a different fraction of all the blocks (such as CPU 12 examines the lines in an order of 0, 8, 4, 12, 2, 10, ... (col. 7, lines 10-34)).

As per claims 10 and 11, Schauser also teaches surrounding blocks are marked for accelerated processing if during one of the passes the unique value for a given block is different from a previously computed unique value corresponding to the given block (col. 6, lines 22-42).

As per claim 25, Schauser teaches a computer system for communicating with a remote console (Fig. 1A), comprising:

a video graphics controller 20 having a frame buffer 18 (Fig. 1B);

a communications device (col. 4, lines 25-27); and

a processor coupled to the video graphics controller and the communications device, the processor configured to: divide the frame buffer into a number of blocks;

periodically read the frame buffer and determine whether any of the blocks have changed since a previous reading; and

transmit changed blocks to the remote console via the communications device (col. 5, lines 6-23).

As per claim 26, as cited above, Schauser generating a checksum for a pixel block under examination. As defined in Application's specification, a hash code is a unique number mathematically calculated by performing a hashing algorithm 204, such as a 16-bit cyclic redundancy check or other algorithm resulting in a unique number (paragraphs 53 and 54). Since the checksum is a form of redundancy check, it can be read on the claimed "hash code". As cited above, Schauser teaches comparing the new checksum with the previously stored checksum to determine a change in the pixel block.

Claims 30-36, which are similar in scope to claims 5-11, are thus rejected under the same rationale.

Claim 37, which is similar in scope to claim 25, is thus rejected under the same rationale.

Claim 38, which is similar in scope to claims 25 and 26, is thus rejected under the same

rationale.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 3-4, 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schauser (U.S. Patent No. 6,331,855) in view of Yamakado et al. (U.S. Patent No. 6,014,133).

As per claims 3 and 4, as applied to claim 2 above, Schauser teach all the limitations of

claims 3 and 4, except for compressing the contents of the first block before transmission using

run length encoding. However, this is what Yamakato et al. teach. Yamakato et al. teach a

method of transmitting pixel blocks that has been changed as compared to the previous screen

(see Abstract and Figs. 4, 9), and further teach compressing the changed rectangles before

transmission using run-length encoding (col. 13, lines 53-65).

Therefore, it would have been obvious to one skilled in the art to utilize the compressing

method as taught by Yamakado et al. in combination with the method as taught by Schauser in

order to increase efficiency during data transmission.

As per claim 27, as applied to claim 26 above, Schauser teaches generating hash code for

each pixel block and comparing the hash code of the first block with subsequent block to

determine the changes. Schauser fails to teach developing a repeat command to indicate how many times the previously positioned block is repeated prior to transmission. However, this is what Yamakato et al. teach. Yamakoto et al. teach an unchanged signal generator to generate a signal indicating the unchanged rectangular region is identical to the previous screen (a repeat command) (col. 6, lines 25-34), and transmitting the first block and the repeat command (Fig. 2, col. 12, line 64 through col. 13, line 5).

Claims 28 and 29, which are similar in scope to claims 3 and 4, are thus rejected under the same rationale.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

11/14/2006

KEE M. TUNG
SUPERVISORY PATENT EXAMINER